

REMARKS

A telephone interview was held for this application on November 9, 2004. The interview was attended by Examiner Bradley L. Sisson and Applicants' attorney, Janet M. MacLeod. No exhibits were shown nor were demonstrations conducted. Claim 23 and U.S. Patent No. 5,874,219 to Rava et al. ("Rava et al.") were discussed. Agreement was not reached.

In the Interview Summary mailed November 12, 2004 the Examiner has provided his description of the substance of the interview. Applicants do not agree with the Examiner's statements at page 3, paragraph 2 of the Interview Summary. Applicants' attorney stated in the interview that Applicants disagree with the Examiner's characterization of Rava et al., since, inter alia, the array of test sites in Rava et al. is within a single well, and thus the apparatus is configured to detect a signal from a single sample at a time. Rava et al. at Col. 8, l. 1-8; Col. 5, l. 22-62. The device of Rava et al. requires a multi-axis translation stage that moves the chip plate to position different wells to be scanned. Rava et al. at Col. 5, l. 22-62. Applicants do not acquiesce to any of the statements in the description of the substance of the interview in the Interview Summary mailed November 12, 2004.

In the Office Action mailed July 13, 2004, Claims 23, 24, 27-39 and 46 have been rejected under 35 U.S.C. §§ 102(a) and (e) as allegedly anticipated by Rava et al. The Examiner has alleged that Rava et al. teach an apparatus comprising an array of test sites on a chip, and further comprising an array of pixels of a CCD, which in turn detects signals resulting from a chemical reaction. The Examiner has further alleged that Rava et al. teach that the apparatus can comprise temperature controls, focusing means, and means for collecting and processing data. The reference also allegedly provides guidance as to how many pixels one would need in a CCD so that a signal at a given test site would be detected and the data recorded.

Applicants respectfully submit that Rava et al. fail to teach each element of the presently claimed invention, and therefore fail to anticipate the subject matter of Claims 23, 24, 27-39 and 46. In particular, Rava et al. fail to teach an apparatus in which a single optically active transducer is arranged so that light emitted from a plurality of samples impinges upon

corresponding predetermined regions of the transducer. Rava et al. also fail to teach a light intensity determination device for simultaneously determining the level of light intensity impinging upon each of the predetermined regions.

In the interest of advancing prosecution, Claims 23 and 46 have been amended to specify a masking means between the reaction sites on the sample receptacle (Claim 23) and plate (Claim 46). Claim 36 has been cancelled without prejudice and Claim 37 has been amended to correct its dependency. Support for the amendment of Claims 23 and 46 may be found in the specification, for example at page 5, line 29 – page 6, line 17.

Rava et al. do not teach or suggest the use of a masking means between the reaction sites. The present rejection in view of Rava et al. is based upon an interpretation of Rava et al. whereby the array of reaction sites in the form of a biological chip is within a single test well, since this is the only interpretation of Rava et al. that could conceivably support simultaneous monitoring of an array of reaction sites for light.

Rava et al. do not teach or suggest a masking means between the reaction sites on the biological chip. Rather, Rava et al. teach that the chip may be silicon or glass, and that “[s]ubstrates that are transparent to light” are useful when the assay involves optical detection. Rava et al. at Col. 4, lines 9-17.

Although not relevant to the present rejection, Rava et al. do not even teach a masking means between the arrays of reaction sites, i.e., between the wells containing the biological chips. In some embodiments the chip plates (i.e., the plates containing the wells which in turn contain the chip containing the array of probes, or reaction sites) are made using a wafer and a body having a plurality of channels. However, Rava et al. do not teach or suggest the use of an opaque body. Rava et al. teach that the “light passes through the chip plate since it is transparent” and that light is directed “through the transparent wafer or base that forms the bottom of the biological chip plate.” Rava et al. Col. 5, line 45; Col. 6, lines 27-28. Further, one would not have been motivated to use a masking means between the wells, or arrays, of Rava et al., because the wells are monitored sequentially, not simultaneously. Rava et al. at Col. 5, lines 57-62, Col. 6, lines 63 – Col. 7, line 9.


In view of the foregoing comments and amendments, it is submitted that Rava et al. do not teach every element of the apparatus claimed herein, and withdrawal of the rejection under 35 U.S.C. §§ 102(a) and (3) is respectfully requested.

Favorable reconsideration and allowance of all pending claims is earnestly solicited.

Respectfully submitted,

DORSEY & WHITNEY LLP

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By: 
Janet M. MacLeod
Reg. No. 35,263
250 Park Avenue
New York, NY 10177
(212) 415-9200

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